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## Outlook

Wheat demand is slackening. The look-ahead for wheat use in 1971/72 as given in the August issue of ERS's Wheat Situation—

Wheat for food . . . "likely to remain at recent levels of around 525 million bushels. This follows the long term trend of slowly declining per capita consumption just being offset by population growth."

Wheat feeding . . . "to decline from the 1970/71 level of 214 million bushels, though for the July-September quarter, it could exceed the 141 million bushels of last year."

Wheat exports . . . "to drop substantially below the 735 million bushels of 1970/71. Reduced demand in Europe accounts for most of the decline."

All told, this year's disappearance may drop around 100 million bushels from the 1,534 million of 1970/71.

Beginning carryover on July 1 was 730 million bushels, compared with 885 million on July 1, 1970. But this reduced carryover will be more than offset by a 12-percent jump in 1971 output. The indicated production of 1,548 million bushels is second only to the 1968 crop. The total supply stands at 2,279 million—15 million more than in 1970.

Based on the total expected disappearance, the carryover next July 1 would be up more than 100 million bushels from a year earlier, and the biggest in 3 years.

Wheat prices for the year could average somewhat below last year's \$1.34 per bushel. These lower prices may prompt growers to make greater use of the loan program in '71. They put under loan 254 million bushels from the '70 crop.

October-December of 1970 saw the biggest quarterly hog slaughter since 1959. This year's 4th quarter slaughter will probably be the second biggest. However, prices to hog producers won't sag as much as they did in the fall of '70. Prices of barrows and gilts are projected \$1-\$3 per hundredweight above last fall's, when they averaged around \$16.50 at seven major markets.

This year's June-November pig crop is estimated 8 percent smaller than the

very large crop of '70. These pigs will go to slaughter during first half '72. With the prospect of reduced slaughter, prices next year will run much higher than those in January-June 1971, when they averaged \$17.50 per hundredweight for barrows and gilts at the seven markets.

The market for feeder cattle in recent times has generally been higher than the market for fed cattle. ERS livestock watchers believe this situation will persist in the next several months.

Through the remainder of '71, feeder prices—buttressed by strong demand—are expected to hover near last year's quotations, barring a worsening of drought conditions. In other words, cattle feeders will be again working against a negative margin. They'll be getting lower prices for finished cattle than what they paid for these cattle when bought as feeders. For a rough comparison: in late July, Choice grade slaughter steers brought \$32 per hundredweight in Omaha, about \$2 less than the price of feeders in late February.

Favorable feeder prices have encouraged cattlemen to expand breeding herds. Five years ago, we had only 33.5 million beef cows. At the beginning of this year they reached 37.6 million head—an increase of 12 percent. Further expansion is likely this

year. Same holds for the total cattle inventory. The January 1, 1971 count showed farms and ranches had 114.6 million cattle and calves, 2.3 million more than a year earlier. Another increase is developing. This year's calf crop is estimated at 47.1 million head, up 1.2 million.

Crop receipts this year, based on production prospects as of midsummer, could run \$2 billion above 1970's \$19.6 billion. This, despite a drop in direct government payments. Payments will be off substantially to feed grain producers.

Cash receipts from livestock will probably top last year's \$29.6 billion. Dairy receipts will also continue to climb in response to bigger marketings and this year's higher support prices for manufacturing milk.

Production costs may rise to nearly \$43 billion. Farmers' realized net income therefore will likely come close to last year's \$15.7 billion. Some improvement is expected in realized net per farm, as farm numbers continue to dwindle.

Shorn wool production in the U.S. this year is estimated at 154.7 million pounds, grease basis. This is 45 percent below a year earlier and 2 percent below 1960. The Western clip (13 States) is placed at 118.3 million pounds—4 percent below a year earlier and 38

#### ALL WHEAT: SUPPLY AND DISTRIBUTION 1

Year beginning July	Supply				Disappearance					Ending carry-
					Domestic				Exports	over
	Begin. ning carry- over	Produc- tion	Imports	Total	Food	Seed	Feed <sup>2</sup>	Total		
				Million	bushels					
Average 1964-68	644	1,402	1	2,047	514	68	100	692	728	627
1968 1969	539 819	1,577 1,460	1 3	2,117 2,282	520 521	61 57	173 213	754 791	544 606	819 885
1970 1971 (projected)	885 730	1,378 1,548	1	2,264 2,279	525 525	60 65	214 190	799 780	735 650	730 849

- <sup>1</sup> Includes flour and products in wheat equivalent. Based on July production estimates.
- <sup>2</sup> Includes negligible quantities used in distilled spirits and beer.

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percent less than in 1960. Shorn wool output in the Native States, at 36.1 million pounds, is 5 percent below 1970 and 51 percent less than the 1960 output. Average weight per fleece is expected to be about 7.84 pounds—up slightly from last year.

Foreign Spotlight: U.S./Communist Trade. The loosening of controls over trade between the U.S. and Communist world might, in time, lead to bigger exports for U.S. agriculture. But trade specialists do not foresee an immediate and sizable boost.

Our farm exports to the Eastern Bloc were climbing even before June 10, 1971 when President Nixon lifted two restrictions on trade with the Communist world: (1) the embargo on certain items that can be traded with the People's Republic of China and (2) the requirement that half our wheat and feed grains to the Eastern Bloc go on American freighters.

Despite the shipping limitation, U.S. exports to the Bloc countries were up three-fourths (to \$188 million) in July 1970/March 1971 over a year earlier, mainly due to gains in soybean and soybean product exports. Eastern Europe also got some of our feed grains, because of technicalities permitting the shipping requirement to be waived.

China's farm imports include some of the major exports of the United States such as wheat, cotton (a traditional Chinese import) and tobacço. These commodities likely would receive consideration if trade negotiations are undertaken by the two countries.

U.S. agricultural exports shattered all records in fiscal '71, reaching \$7.8 billion. Prospects this year are less bullish. Shipments may ease off because of economic slowdowns in most industrialized nations, and larger world grain crops. Adding to the uncertain outlook are the Pacific Coast dock strike and possibility of a fall strike at Atlantic and Gulf ports.

Lower exports are likely for U.S. wheat, feed grains, and cotton. Value of soybeans sales could pick up.

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FARM

RURAL

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**CONSUMER** 

**FOREIGN** 

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# SEARM PRODUCTORY INVITY LEVELING?

The rate of output per unit of input has remained about the same since 1963. However, this could change quickly with the introduction of new technology to come.

When an industry has been showing gains in productivity for a number of years, statistics that indicate otherwise will raise some eyebrows... and a lot of questions. Both reactions are stirred by the recent trend in U.S. agriculture's productivity.

After heading upward for more than a decade, the productivity index in the early 1960's began to lose thrust. For the sixties as a whole, the gain was small by comparison to the phenomenal rises during most of the forties and fifties.

The productivity index measures total agricultural output per unit of all inputs used in production or charged to the farming industry. When output and input advance at the same rate, the index stands still.

In many years during the 1960's the productivity index did go up—reaching record peaks twice.

However, a review of the decade's performance showed productivity rose by only 3 percent, versus 26 percent in 1950–60 and 18 percent in 1940–50.

Production itself went up over 13 percent in the decade of the 1960's. So, the lack of buoyancy in the productivity index suggests no immediate threat to our capacity to produce farm products. Actually, total output could jump sharply and quickly by increasing the acreage in crops.

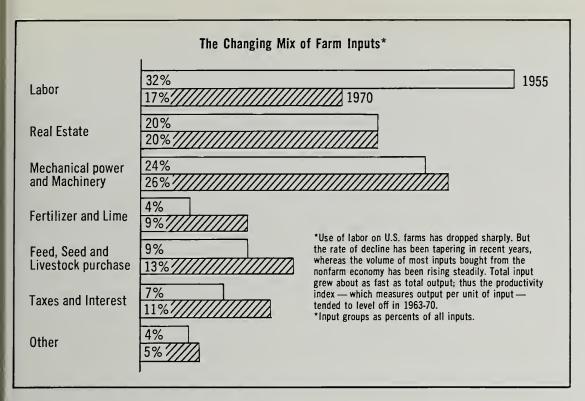
In 1970, farmers used 336 million acres for crops, 50 million fewer than in 1949. Most of the 50 million acres went into government diversion programs. Much of this land

could quickly return to production at little added cost. Also, the Nation has a quarter billion acres of land in uses other than crops that is considered suitable for cultivation. If there were the economic incentives to do so, a large part of this acreage could also be brought into production.

Is the letup in productivity gains only temporary? No one knows for sure. But a similar question might have been asked back in the late 1940's, when the productivity index showed the same sluggishness as in the last half of the 1960's. The index resumed its skyward course around 1952.

Generally, technological developments spark productivity increases. Major ones—like the transition from horses to tractors, and from openpollenated to hybrid corn—have repercussions lasting for decades.

The 1960's did not usher in major

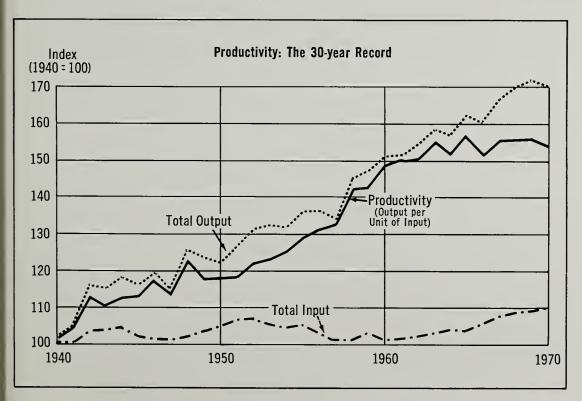


scientific breakthroughs for agriculture, although there continued a steady stream of improved farming methods. These acted to buttress the index. However, in any one year, unfavorable weather or disease infestation may cause productivity to sag. Such was the case in 1970, when drought in part of the Corn Belt and Southern corn leaf blight in much of the rest of that region resulted in a 2-percent decline in the index.

There are several explanations for the slowdown in the 1960's that have to do with certain structural changes spurred by the new technology. One explanation relates to economies of scale.

As the size of a farm operation increases, at first the costs per unit of output go down. At some point, the least-cost level of production is reached. This level varies by type of farm, and with the technology available to farmers at any one point in time.

Obviously, it takes a bigger field or a bigger hen house to efficiently use modern equipment. With the advent of sophisticated machinery—



four- and six-row equipment and the rest—farmers expanded. Since World War II, the average farm size has grown from 195 acres to about 390. Meanwhile, numbers of farms were cut by more than half to around 2.9 million.

In the process of growth, many farms became of such size that output per unit of input did not increase as fast as it had when these farms first began to employ modern machinery, hybrid seeds, fertilizers, pesticides, etc. Some farms in the 1960's had approached the point of least-cost production.

Other farms kept on growing past the point of least-cost production. By producing more units they were able to take a lower profit per unit and still have a larger total income. These farms tended to hold down the average increase in the productivity index of all farms.

Even though many farms have achieved maximum economies of scale with present technology, the point of least-cost production could shift again with technological breakthroughs. (1)

#### Ban on DES Would Escalate Beef Prices

If cattlemen had to stop using DES in their feed rations, they'd have several options for coping with the situation. However, the alternatives could lead to higher prices for beef and an additional cost to consumers of \$300 million to \$460 million annually. That's the gist of an ERS report prepared for the House Intergovernmental Subcommittee investigating food additives and medicated animal feeds.

DES (diethylstilbestrol) is a synthetically produced hormone. When mixed in minute amounts in cattle rations, it results in faster growth of beef cattle and in increased efficiency of feed conversion. The hormone is now being given to 80–85 percent of all cattle coming off U.S. feedlots.

Concern has arisen in the past over DES residues in laboratory animals because the synthetic hormone has been found capable of causing cancer. However, Food and Drug Administration regulations require that cattle be withdrawn from DES 48 hours before slaughter, a time span which allows the animal's body to rid itself of the drug. The livestock industry has adopted an improved residue sampling program. Both measures are aimed at keeping DES residues within acceptable limits.

The ERS report notes that banning the use of DES would increase the time needed, and feed used, to produce a pound of beef. The cost of beef to consumers would probably go up as well.

The ERS analysis assumes feedlot operators would adjust to the ban in three ways. Economists stress, however, that each alternative is theoretical and that a mix of the three would probably be the case.

Feeding present cattle numbers at the present length of feeding period: Without DES, the total beef supply would be reduced by an estimated 3.75 percent, or nearly 4 pounds per person; beef prices to consumers would go up 3.5 cents per pound; average liveweight prices of all cattle would increase \$1.54 per cwt., and net revenue to the farm sector by \$460 million a year, due mainly to higher cattle and other livestock prices, plus a net reduction in feed costs for fed cattle.

Feeding present cattle numbers for a longer period to maintain present slaughter weights and beef output (assumes both production and consumption of beef would be maintained at 1969 levels): Feed used in feedlots would increase 13.9 percent, and the feeding period by 11.6 percent; total cost of output for all beef cattle would rise 4.3 percent or \$1.13 per cwt., liveweight basis—the equivalent of 2.6 cents per pound at retail; net increase in production costs would be about \$300 million a year.

Feeding a larger number of cattle at present length of feeding period to maintain beef output (also at 1969 levels): Number of cattle raised, as

#### Apple Count

Most any crop reporter would welcome the opportunity to estimate the size of a fruit crop without going out on a limb. He may soon be able to do so, using the candid camera as an aid.

Pilot studies of apple orchards in Virginia over a 5-year period indicate that a trained team of observers can count the fruit in color slides of a sample of limbs and come up with a satisfactory estimate.

The limbs were selected from bare trees photographed in winter. Pictures were taken again in both June and July. Early July estimates—not only of the number of apples but also their size and weight—were about 95 percent accurate. (The fruit was harvested, recounted, and sized in September.)

If the photographic method proves feasible on a broader scale, it would be much easier, less hazardous, and perhaps less costly than the usual method of actually counting the fruit on sample limbs, which are often in hard-to-reach parts of an apple tree. (3)

well as marketings (fed and nonfed cattle), would have to go up 3.9 percent; total production costs would increase about 3.5 percent, or roughly 92 cents per cwt., liveweight basis; all told, the addition production costs of feeding a larger number of cattle would be around \$330 million. (2)

# Science Weds Wheat & Rye, Christens It Triticale

When is one head better than two? Obviously, when a single head of grain yields as much in quantity and quality as two others. And that sums up the hopes for the new, manmade grain called triticale (tritt-uh-kay-lee).

Triticale is a cereal grain born from a cross of wheat and rye—a feat that scientists have been trying for over a century to pull off successfully.

The miracle crop they have finally come up with gets its name from the two genera involved, *Triticum* and *Secale*. Plant breeders' objectives included the combination of the wheat's grain quality, productivity, and disease resistance with the rye's vigor and hardiness.

Much effort has been expended toward development of high-yielding triticale as a field crop. Such marked progress has been made that triticale is now being grown in quantities that will soon help determine whether it really has all the miraculous qualities claimed for it by some of the more optimistic plant breeders and by some seed companies.

Estimates of plantings this year range between 300,000 and 400,000 acres. The biggest acreages are in Kansas and Texas, with smaller seedings scattered through California, Arizona, Nebraska, and the Dakotas. In addition, scientists in several States and in a number of foreign countries are testing it.

Those who describe triticale in superlatives say that its head is nearly twice as long as a wheat head; that it has a yield potential that exceeds wheat's by as much as 50 percent; and that its protein content is at least 2 percentage points above the high-quality wheats raised in the Upper Midwest and Canada.

Others, however—including some of USDA's wheat researchers—are far more conservative in their appraisals.

They point out that performance of the triticale was disappointing in tests conducted at five locations (Georgia, Maryland, Texas, Arizona, and Idaho). The hybrid wasn't nearly as productive as its proponents claim, and it also wasn't very winter hardy. There are indications, too, that the cross between durum and rye has poor milling qualities in its present stage of development and would be unacceptable as a flour product.

However, even the most skeptical critics don't discount triticale's potentials. They concede that new and better strains would qualify triticale as a valuable supplemental feed grain crop, possibly acting as a buffer against such calamities as the Southern corn leaf blight.

Meanwhile, USDA has announced that triticale will not be a feed grain program base crop nor will it be eligible for substitution or price support. (4)

#### Wheat Shown Competitive In Southeast Feed Rations

Farmers are putting wheat on the menu more and more for livestock.

And the reason is its price is sometimes competitive with certain other feed grains in livestock rations.

In the Southeast, in an economic study (based primarily on Atlanta, Ga., prices) use of soft red winter wheat saved 14 cents per cwt. in complete steer rations and 4 cents per cwt. in complete dairy rations.

Wheat's estimated Southeast market price was \$2.77 a cwt. (91 percent of corn's \$3.04 per cwt). And in the study, at that price, wheat made up 65 percent of the least cost starter ration for steers, 67 percent of the grower ration, and 72 percent of the finisher ration.

Its use at this rate completely replaced corn and also reduced the

need for protein supplements such as soybean meal and urea.

In dairy feeds, wheat made up 19 percent of the ration at the market price of \$2.77 a cwt.

This percentage is lower than that for steers because dairy cattle need more crude fiber, supplied by such feeds as cottonseed hulls.

Wheat substitutes for corn as an energy source in dairy rations. Wheat also supplies protein more economically than the protein supplement, cottonseed meal.

The study traces use of wheat from zero to the maximum acceptable for cattle feed and shows the prices at which the feed proportions change. The study keeps the other feed prices constant at their mid-December 1970 level in Atlanta. As the price of wheat goes down, more wheat is used and the feed formula changes.

The highest price at which wheat could be used in dairy rations, given prices of other feed ingredients, was found to be \$2.94 a cwt. The highest acceptance price for wheat in steer starter and grower rations was \$3.01 a cwt., and \$2.95 for finisher rations.

The table below shows the costs of a steer starter ration as the price of wheat changes.

WHEAT IN STEER STARTER RATION: USE GOES UP AS PRICE DIPS \$3.01 \$2.96 \$2.76 \$2.73 \$1.61 winter wheat (per cwt): to to to to \$1.62 \$2.97 \$2.77 \$2.74 Percent in ration 69.09 Soft winter wheat 0.00 55.98 64.59 65.08 66.42 Price per cwt. Other ingredients: 20.96 17.99 22.80 23.63 18.54 Corn silage \$0.50 22,48 0.00 Citrus pulp 2.65 5.78 7.08 5.11 4.97 4.60 3.04 50.74 0.00 0.00 0.00 0.00 0.00 Corn 1.62 12.00 12.00 2.47 0.00 0.00 Molasses 1.81 0.00 0.00 0.00 4.49 0.00 Soybean meal 44% 5.21 1.53 4.25 1.42 1.42 1.42 1.41 1.38 1.33 Urea 0.92 0.90 Defl. phosphate 3.66 0.89 0.99 0.94 0.93 0.50 0.50 0.50 0.50 0.50 0.50 2.06 Salt 2.50 2.50 Vitamin mineral mix 8.28 2.50 2.50 2.50 2.50 0.00 0.00 0.00 0.06 0.29 Calcium carbonate 0.00 0.00 0.00 0.00 0.00 6.84 Cottonseel hulls 1.55 0.00 \$2.54 \$2.54 \$2.51 \$2.38 \$2.36 \$1.62 Cost of ration (per cwt):

Use of wheat as feed has almost tripled in the last few years as wheat prices have become competitive with other feed grains.

Through most of the sixties, wheat for feed averaged about 75 million bushels a year. However, in the 1969–70 crop year, it jumped to 215 million bushels, and for 1970–71, the estimate is 235 million.

Wheat gained its price advantage through recent changes in government loan rates that set a base price for wheat that was competitive with other feed grains. (5)

## Farm Population Drained To Less Than 10 Million

For the first time in this century, the Nation's farm population in 1970 dropped below the 10-million mark. The total number last year is estimated to have fallen to 9.7 million persons—6 percent fewer than lived on farms in 1969 and 38 percent fewer than in 1960.

Since 1960, the decline in the farm population has averaged 4.8 percent a year. The nonfarm population over the past decade had an annual increase of 1.7 percent.

The annual rate of loss in farm population in 1960-70 was much greater among Negroes and other minority races (10 percent) than among whites (4 percent).

About three-fifths of the farm people 14 years old and over in 1970, or 4.3 million, were either working or seeking work. The proportion was unchanged from 10 years earlier.

The percentage of women in the farm-resident labor force, however, has been going up since 1960. The proportion rose from 30 percent to 38 last year. The rate of male participation has declined—from 85 percent in 1960 to 80 in 1970. The drop is due in part to the increasing proportion of older men living on farms who are of retirement age.

Of the 4.3 million in the 1970 farm resident labor force, 54 percent worked solely or primarily in agriculture. The remainder were employed in nonagricultural industries. (7)



Instead of posting a "Gone Fishing" sign when he retires and enjoying a life of leisure, a rural resident, studies show, is more apt to be worrying about poor health or low income than urbanites.

America's growing population of senior citizens has now hit the 20 million mark.

Gathered together, they could fill the Nation's six largest cities. Or California, the most populous State.

But spread out, as they are, many of their needs are made known only in a faint voice.

One-fourth of the over-65 population is classified as poor. And although half are in sufficiently good health to work, only one man in four does—compared to two out of three in 1900—due in great part to auto-

mation and the diminishing requirements for labor. The elderly are depending more and more on public and private pensions than earned income.

Today, two out of every five older Americans live in rural areas. To them, retirement isn't likely to mean more days on the golf course or the start of a second career.

As a group, they're ranked among the poorest in the country. They're hit by the double barrel of being old and of living in a rural area—factors that generally pull down their income level.

Of course, the rural aged are not copies from one mold. They include a wide variety of persons—wealthy city executives who've retired to the country; smalltown merchants; farmers; housewives; migrant work-

ers; American Indians; Spanish Americans.

But in general, the rural aged make up about 50 percent of all the aged classified as poor. The poverty threshold last year was \$1,994 for an elderly farm couple and \$2,348 for a nonfarm couple.

The idyllic life commonly imagined for the rural retired is far from reality, according to one USDA sociologist.

Drawing a big "X" through the picture of the rural senior citizen enjoying the outdoors, the slower pace of living, the closer family ties—he reports that compared to their urban counterparts, older rural persons have:

- —Poorer physical and mental health;
  - -Lower incomes;

- -More deteriorated housing;
- —Poorer transportation;
- —Fewer opportunities for satisfactory social relations; and
  - —Stronger feelings of isolation.

This feeling of isolation, studies have shown, can lead to intellectual and other deterioration.

Persons with no one to talk to tend to withdraw, and the greater the isolation, the faster the deterioration takes place.

In interviews with the aged in rural areas, respondents frequently cited transportation and health facilities as among the most needed. In some places, practically no public transportation facilities exist.

In some areas, too, there is an acute shortage of physicians, and rural residents have to travel long distances to see a doctor, particularly a specialist.

The Administration on Aging, in the Department of Health, Education, and Welfare, reported in 1963-65 that one of every three persons over 65 in the southern U.S. was unable to carry on his major activity due to physical disability. This compared to one in five for the rest of the country.

For reasons of poor health, the activities of the rural aged were restricted for an average of 46 days a year during 1963–65, against 33 days in the case of the older residents of the cities.

And about 87 percent of the aged in rural nonfarm areas were reported to have chronic ailments, compared to 80 percent in urban areas.

The increased number of older people has been deemed a new phenomenon in the Western Civilization, and there is a certain lag in creating organizations to provide service and support to older people.

Today, at age 65, most persons have 12 to 15 years ahead of them. As the proportion of these persons continues to grow (from 3 percent in 1850 to around 10 percent today), the elderly are receiving more and more attention.

A White House Conference on Aging, for example, will convene in

late November to consider "a more realistic and comprehensive national policy for older Americans."

Every State now has an agency on aging. The last one was established a little over a year ago.

Another aid to the retired is the Farmers Home Administration program to promote rental housing in rural areas. FHA began this program—in 1962—because of the lack of rental housing in small communities at prices people can afford.

The program has since loaned \$93 million for rental housing for both senior citizens and persons with low incomes. Iowa is the leading recipient, with loans totaling \$10.6 million since 1962, followed by Missouri (\$10.3 million) and Alabama (\$5.5 million).

Last year, the loan limit was raised from \$300,000 to \$750,000 for a rental housing unit in the open country or towns of 10,000 population or less for persons 62 or older as well as low-income persons of all age groups. Loans may also be made for recreational uses, such as social centers for senior citizens. (6)

## Farm Bankruptcy Also Costs the Community

San Joaquin Valley cotton farmers who filed bankruptcy petitions during the past 2 years shared similar characteristics. And their unpaid debts resulted in direct revenue losses to local communities.

In a six-county study area, available court records yielded 64 cases of bankruptcies. Of these, 24 farm operators were located and interviewed.

Close to two-thirds of the sample operators were over 45 years old. None was under 35 or over 65.

Most of the bankrupt farmers had a larger than average number of dependents—3.79 persons per farm, compared with 3.33 for the region as a whole. A recent ERS study in South Dakota showed similar results: a high incidence of larger-than-average families was associated with farm loan failures.

Operators who filed bankruptcy petitions were generally better educated than other farmers throughout California. Over half the insolvent farmers had completed at least 12 years of schooling, compared with only a little over a fourth for the State as a whole.

Similarly, experience proved no safeguard against insolvency. Eleven of the 24 operators—46 percent—had spent over 25 years on their farms. The same was true for only 15 percent of other Golden State farmers.

Most operators in the study area were full-owners. Of those who filed for bankruptcy proceedings, however, over two-thirds were part-owners.

Even so, the bulk of farms declared insolvent were of larger than average size. Close to 30 percent of the bankrupt farm operations held over 2,000 acres—compared with only 7 percent for the entire study region. Over 75 percent exceeded 500 acres—still well above the region's average.

Operators who filed bankruptcy petitions had a choice of two options. The first was "straight" bankruptcy—a request for immediate relief from all indebtedness. The second option involved filing under Chapter 11 of the Bankruptcy Act.

Farmers who chose the second alternative could continue their operations under a plan approved by the court. By deferring payment of debts, it was assumed the operator could, in time, regain financial solvency.

Regardless of the type of bankruptcy petition filed, the insolvencies had a significant impact on the economies of the local communities. Court records of the 64 cases showed total indebtedness to be \$32.6 million.

As the farms were centered around six communities, each community suffered an average direct economic loss of approximately \$5.4 million during 1969-70. But \$16 million in commerce may have been generated in each community in the ab-

sence of the bankruptcies.

Over half the farm insolvencies, however, were petitioned under Chapter 11 of the Bankruptcy Act. Thus, some of the debts may be repaid in time. But this will probably not happen before the communities feel the pinch of reduced income flows. (7)

# A 'Farm' Must Sell to Keep Its Name—But Not Always

People can't seem to agree on what a farm is.

The Census definition of a farm has been changed seven times since 1850, and three times in the last 26 years alone.

Since 1959, the Bureau of the Census has considered units of less than 10 acres to be farms provided they sell at least \$250 worth of agricultural products during the year. Operations of 10 acres or more are required an annual minimum of \$50 worth of goods.

Yet the modifications in the Census standards have not resulted in a definition that meets the needs of all the people who count farms.

The Statistical Reporting Service (SRS) for example, combines the Census criteria with a point system based on livestock, crop, and pasture inventories. Each point represents a dollar of imputed sales. Places that meet the acreage and point criteria are considered farms whether or not the residents have sold or intend to sell anything.

According to the current Census definition, a farm must sell some of its products. Since SRS standards do not include this requirement, the two agencies do not report the same number of farms. In 1967, 14 percent of U.S. farms could qualify on points alone. The proportion of farms meeting the point requirements, but failing by the more rigid Census criteria, varied from 30 percent in eight States to less than 5 percent in six States.

The Agricultural Stabilization and Conservation Service uses yet another working definition in administering its programs. Each acreage allotment makes up a farm according to ASCS standards, even though the land may be rented. By the Census definition, on the other hand, rented land is considered to be part of the operator's farm and he may rent from several people or own some land of his own.

The variety of definitions becomes even greater if the income reporting requirements of various taxing agencies, such as the Internal Revenue Service and the Social Security Administration, are considered to imply a definition of a farm.

In 1965, for taxing purposes, IRS said there were 2,993,000 farms in the country—347,000 fewer than the USDA figure of 3,340,000. As another example, in 1959, 3.7 million people reported farm income to the IRS as sole proprietors or farm partners. But only 2.2 million reported farm self-employment earnings to the Social Security Administration. The difference in numbers reflects a difference in income reporting requirements. (10)

## Balanced—Growth Backers Focus on Mid-America

Social scientists often debate the definition of "optimal balance" of U.S. population between rural and urban areas. But if present population shifts continue, a major proportion of the 60 to 100 million people to be added by the year 2000 would be living in cities on the east and west coasts—leaving America's heartland a relatively empty place.

The case for balanced growth does not rest on an either-or proposition—rural versus urban areas.

Some advocates of balanced growth believe that both cities and nonmetropolitan areas require large-scale help. And presumably, such aid would produce reciprocal advantages.

The thrust toward balanced development would involve ways of encouraging growth in America's heartland and other nonmetropolitan

areas away from our most densely populated urban regions.

Along with population redistribution, the concept of balanced development necessarily includes some geographic redistribution of income and economic activity.

To find out how balanced growth can be accomplished, it must be tested, perhaps in a few selected pilot locations. These would be in areas where growth has not kept pace with more favored regions, but where some favorable growth conditions exist.

The initial focus of a national policy of balanced growth might be on a multicounty region, with a small center as its base. The center would have roughly 20,000 to 50,000 residents, and transportation links to larger and smaller centers.

The ultimate goal is to achieve balanced growth by pushing development beyond the boundaries of the pilot areas into adjacent, more rural—and less developed—regions.

Once the pilot areas have been selected, there are many ways open to stimulate growth within the target areas.

A few of the more powerful means are:

Locate in these regions additional portions of Federal and State highway networks.

Extend the national park system and other recreation sites to such places.

Establish regional and subregional offices, laboratories, and other public installations in pilot regions.

Allocate special funds for schools, hospitals, libraries, housing, water and sewer systems—to induce manufacturing and business to locate or establish branch offices in the region.

In the initial phase of development, the Federal Government might provide public service jobs for construction of highways, sewer systems, and other facilities.

Additional support would be needed from State and local governments. They could, for example, set up authorities to promote bond issues, provide tax incentives to new

business and industry, help develop new airports, and influence zoning regulations to guide favorable growth patterns.

Private industry also stands to play a vital role. For the pilot areas to grow and prosper, business and industry must be persuaded to decentralize, and shift some of their functions away from the major population areas.

In some regions, the shift has already begun. Many manufacturers provided jobs in rural areas during the 1960's. Food canners and processors do well near the source of agricultural production. Light industry, private schools, and scientific laboratories may locate in nearly any favorable area. (12)

# **Exploring Our Cropland Potential**

The U.S. has about 243 million acres of forest, pasture, and rangeland that are potentially suitable for cropping (Classes I-III). This assumes that economic conditions justified their use. Under today's conditions, about 49 million acres of the 243 million could be farmed if the need arose, a recent study reports.

The study area was confined to the Delta, the Midwest, and the Southeast. These are the regions where land conversion into cropland is now going on to a significant extent.

Of the 49 million acres, an estimated 37 million is currently woodland and 12 million is pastureland. If actually brought into production, the added acreage would be equivalent to 15 percent of the U. S. acres now planted to the 59 principal crops, which in 1970 totaled 289 million acres.

The 49 million potential cropland acres do not include the 58 million acres diverted from production under government programs, nor other land not planted to crops but currently classified as cropland.

After arriving at their estimate, the economists also computed the per-acre costs of crop production, then divided the result by yield per

#### Not Enough Money

Is your income adequate?

That was the question put to some 4,000 heads of families in rural sections of Ohio, Indiana, Michigan, and Wisconsin in an ERS survey.

The largest "no" vote came from persons who were 65 or over and disabled—63 percent felt their incomes inadequate.

Overall, though 30 percent of those interviewed in 1967 felt their incomes were insufficient, only 12 percent by Office of Economic Opportunity standards were poor. (The U.S. poverty level for a typical family of four was about \$3,300.)

When asked how much more income they needed, persons 65 and older—whether poor or not—wanted between \$1,205 and \$1,-621.

Persons under 65 wanted an additional \$2,250 on the average. Those near the poverty level wanted \$2,070; those well above the poverty level, \$2,325.

The survey covered both farm and nonfarm rural residents, although it excluded farmers with annual sales of \$10,000 or more.

On the whole, 62 percent of the poor, 52 percent of the near poor, and 24 percent of those not poor said their incomes were inadequate.

Among those who were not disabled, 25 percent of those aged 45 to 64 said they were not satisfied with their income, and 34 percent of those 65 and older expressed dissatisfaction over income. (13)

acre to arrive at an average cost per unit of crop output.

The price per crop unit became the supply price for land conversion. Supply prices were compared to farm prices to determine the most profitable crop that could be grown on land depending on its qualities.

The conclusion was that much of the potential land would be suitable for soybeans—33 million acres from former woodland and 11 million from pastureland. About 4 million would be suitable for rice and the remainder for cotton and corn.

However, the supply of potential cropland will be much less than 49

million acres until the demand for certain crops (especially soybeans and rice) increases considerably.

The economists emphasize that the supply of potential cropland from woodland is sensitive to interest rates and the period over which costs of conversion are amortized. For woodland, conversion costs were figured on the basis of actual costs to clear the land.

Conversion of 49 million acres is based on an interest rate of 7 percent and assumed no stipulation on period of repayment of conversion costs. (An infinite repayment period would, in effect, mean the landholder would not recover his capital invested in land clearing or conversion to cropland.)

When the repayment is calculated at 5 years, land conversion becomes considerably less profitable than when there is no specified time limit on repayment. (8)

## CRIS Collects Array Of USDA Research

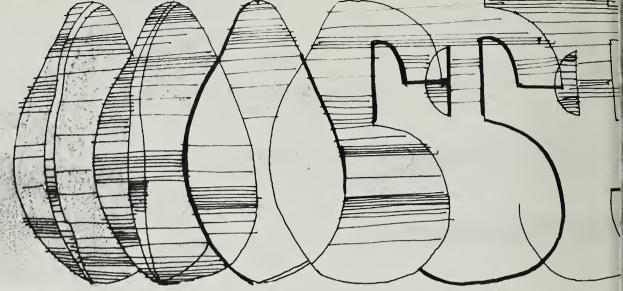
To find out who's done what research in your specialty area, ask CRIS (stands for Current Research Information System).

This computerized information system, in operation for 2 years now, has access to some 24,000 pieces of research or research projects of six USDA agencies, plus 53 State Agricultural Experiment Stations, and 25 other cooperating State institutions.

Among other things, CRIS can provide the name of the people and institutions who did (or are doing) the research . . . a brief description of the project (title, objectives, work plan, and progress of on-going projects) . . . important publications in specific research areas.

Though CRIS is primarily designed to meet the needs of the Government agencies and affiliated institutions, private individuals and agribusiness firms may subscribe to the service on a negotiable basis. Write Current Research Information System, Rm. 6818, USDA (So.), Wash., D.C. 20250. (9)

ALMOND ASSETS



Though California almonds are a Johnny-come-lately as a money-maker for U. S. agriculture, supplies and marketings are now cracking all the previous records.

The United States is the world's biggest producer and exporter of almonds, and the business is getting bigger by the year.

Not so long ago—in the 1930's—our almond crop was only about 7,000 short tons (kernel weight), and we relied heavily on imports to satisfy the rest of consumers' needs.

This year's almond crop is unofficially estimated at a record 70,700 tons, edging past the 1970 record of 70,400 tons. A little over half of the harvest will be used to meet growing demand at home or added to stocks that are now sizable but not yet burdensome. (They've been ranging between 9,500 and 13,000 tons in recent years.) The rest of the crop will go to customers abroad.

Right about now is the busiest time of year for almond growers and processors—virtually all of them in California. The State provides about all of our homegrown almonds and has pushed its share of world exports close to the 50-percent mark.

Harvesting peaks between mid-August and mid-September. By October 31, most almonds will have been machine-shaken from the tree, put into pallet boxes or bulk-loaded into trucks, and delivered to processors.

The world's largest processing plant, in Sacramento, is owned by the California Almond Growers Exchange. This co-op handles about 75 percent of the almond crop on behalf of its members.

As in other years, most of the 1971 crop was already sold while still on the trees, with delivery scheduled for later dates.

The industry operates under a Federal Marketing Order, employed without major revision for 20 years.

An Almond Control Board established by the order, with concurrence of the Secretary of Agriculture, is composed of five handler representatives and five grower representatives.

One of the Board's many duties is to recommend regulation of the volume of almonds that enters trade channels. In so doing it helps determine the quantity available for normal domestic marketings, for reserve stocks, and for export. A 1970 amendment to the order added authority to limit the export availabilities if the demand and supply situation so warrants.

Almond size is a major criterion for prices. And there are various size classifications, depending on the number of shelled nuts per ounce.

The largest nuts—popular for salting—count out at 18 to 20 per ounce. Those numbering 20–22 per ounce are next, and so forth up the scale to the very small 40–50's—also popular, especially with makers of candy bars and other confections. Both ends of the size scale tend to command premium prices, although the medium-sized 26–30's are most abundant.

The almond market is dominated by a relatively few U.S. varieties. Nonpareil, a quite flat variety, accounts for over half of production. The Mission (also called Texas) comes next; its trees are favored for pollenization of Nonpareil. Other standard varieties include Jordanola, Ne Plus Ultra, IXL, Drake, and Peerless—a good in-shell seller.

Varieties are kept separate at harvest. This contributes to the uniformity that makes U.S. almonds so competitive in the world market.

Foreign producers (Spain, Italy, Iran, Portugal, and Morocco—in that order) grow multitudinous almond varieties and usually do not keep them separate. Many buyers who need almonds for special purposes often do not care to take this run-of-the-mill mix. But some foreign varieties are in demand because, for example, they may blanch very well or perhaps have an extra potent



flavor. We even import a few ourselves. But the quantity is minute compared with our exports.

Negligible until about 15 years ago, our shipments abroad have trended upwards since then and gained spectacularly the past two trading seasons.

Our 1969/70 almond exports hit 27,500 tons (shelled basis) worth \$41 million. Foreign demand was particularly heavy because of a very poor '69 Mediterranean crop. West Germany took \$10.8 million worth, thus replacing Japan as our top almond customer.

Though foreign production recovered somewhat in '70, our exports continued to gain, reaching an estimated 32,500 tons in the marketing year that ended June 30, 1971. West Germany again was the leading buyer; next, Japan and Sweden.

Continuing export gains are likely in view of our aggressive market development program and the outlook

#### WHO BUYS OUR ALMONDS?



for ever bigger harvests. Total U. S. almond acreage in 1970 was 235,370 acres; 87,550 of them are young orchards planted within the past 5 years and considered nonbearing. However, about 15,000 to 20,000 acres of these recent plantings are coming into bearing each year. (14)

# Beets—A Major Source Of Nation's Sugar

Sugarbeets raised in the U.S. produce about one-third of the Nation's sugar supply—a whopping 6.5 billion pounds last year.

Although the sugar from sugarbeets and sugarcane is chemically the same, the two industries are quite different from farm to market.

All U.S. sugarbeets are produced under annual contracts between growers and processors. While integration of growing and processing by a single concern is common in the cane sugar industry, integration of this sort is nonexistent in the sugarbeet industry.

One reason is that sugarbeets are grown in rotation with other crops, and growers have to diversify farm operations. Sugarcane, on the other hand, is a perennial crop and is grown continuously in the same fields.

Another important difference be-

tween the two sugar industries is in processing. It's a one-step operation for sugarbeets. Refined sugar is produced at the mill where beets are processed. Cane sugar, however, is first produced as raw sugar and then taken to a refinery.

Production of sugarbeets increased from 14 million tons in 1954 to 28.5 million 15 years later. This is due in considerable part to increased mechanization, improved seed, and greater use of chemicals to control weeds and diseases.

However, the number of farms growing sugarbeets has declined 51 percent from a postwar peak of 37,328 in 1950. In 1969, 18,424 farms grew sugarbeets. California led all States—producing more than 6 million tons.

The industry's growth rate has varied widely among regions. It has been greatest since 1948 in the Red River Valley area in Minnesota and North Dakota.

Six large companies process nearly nine-tenths of the sugar output from sugarbeets.

And because of the concentrated ownership of processing mills (12 companies owned the 59 processing plants in 1969), few beet farmers use more than one outlet.

The principal bargaining power of

Napoleon's fame doesn't rest on it, but he's credited with getting the commercial sugarbeet industry going.

He was seeking a substitute for imported sugar no longer available to France because of the British blockade during the Napoleonic wars.

Frenchmen tried getting sugar from grapes, from trees, from sweet sorghum, from starch. None was commercially successful.

But beet sugar production hit the mark. It then spread from France and Germany (where earlier, in 1747, chemist Andreas Marggraf discovered that beet sugar is identical to cane sugar) to Italy, Holland, Austria, and Russia. However, the first successful beet sugar factory in the U.S. was not established until after the Civil War. (16)

Exports excluded

the sugarbeet farmers has been exerted through growers' associations. Their function is primarily to bargain with processors concerning the price of sugarbeets and other provisions of the grower-processor contracts.

California is the leading State in processing capacity. In 1969, its daily capacity was one-fifth of the Nation's 193,105 tons.

Colorado followed with 13 percent of the national capacity; Idaho, 11 percent; and Minnesota, 10 percent.

On the national market, sugar—including beet sugar—is used now more in industrial food processing than in home consumption.

Sixty-five percent of the total sugar used in 1969 went directly to industrial processors—compared to 42 percent in 1949. (15)

# Georgia's Broilers Travel on Tight Schedule

By contrast to 20 or 30 years ago when most States produced their own supply of broilers, today over four-fifths of the national output comes from 10 States. It's not surprising, therefore, that the typical U.S. broiler logs many a mile before reaching the dinner table.

It takes close scheduling to get the bird from processing plant to consumer in good condition. The timetable might read like so for a shipment of ice-packed broilers leaving the important broiler area of northern Georgia; the destination is Chicago, a distance of almost 700 miles:

Monday a.m. Live birds are trucked from a Georgia farm to the processing plant nearby and put immediately on the processing line. By afternoon or early evening, the broilers have been processed ready-to-cook, chilled, ice-packed and loaded onto a large truck. The 18-hour trip to Chicago begins.

Tuesday a.m. (assumes this truck had two drivers; with one driver, the truck would arrive Wednesday morning). Load arrives at a warehouse of a Chicago chainstore or wholesale distributor.

Tuesday and Wednesday. Broilers are distributed to retail stores and other outlets (the last lots distributed may have to be re-iced), then are cut up, packaged, price marked, and date coded.

Wednesday-Friday. Broilers are displayed in low-temperature refrigerated retail counters. Few are likely to remain unsold by late in the week, but they would be removed, inspected for wholesomeness and rewrapped if necessary. (19)

#### For Fresh Tomato Packer, Profit Stems From Size

Only the largest size fresh tomato packing operations are profitable, according to a recent study.

The conclusion applies equally for packing vine-ripened tomatoes and mature green tomatoes.

Researchers studied vine-ripened tomato packinghouses with hourly capacities of 150 cartons (20 pounds each), 300 cartons, 600, 1200, and 2400. They found only the two largest packers showed a profit after considering operating and investment costs and return on capital. These plants had to be run at 70 percent capacity for at least 200 hours during the packing season to make a profit.

For mature green tomatoes, the two largest plants (with capacities of 1600 and 3200 40-pound cartons per hour) were also the only profitable ones. They needed to be run at 70 percent capacity for at least 300 hours.

The study comes at a time when Mexico is competing strongly in supplying fresh tomatoes for the U.S. market. Mexico supplied 18 percent of the fresh tomatoes used in the U.S. in 1969, compared with less than 10 percent 10 years earlier. Thus, domestic producers are seeking ways to minimize costs of production and marketing.

About half of the tomatoes grown in the U.S. for fresh market use come from the Southeast, and expansion has been curtailed by increasing imports from Mexico. (18)

#### Flying Flowers Face Higher Costs

Domestic air shipments of floral supplies are being buffeted by the currents of spiraling costs. This comes at a time when eastern flower buyers are looking more and more to the West as a supply source, and nearly all the west-to-east flower flow is by air freight.

As eastern flower growers have been unable to keep up with local demand, the major centers of flower supply are drifting westward. Last year, California provided a record 30 percent of the principal types of perishable floral supplies used in the Northeast. That State also had 48 percent of the South's business, and 40 percent of the Midwest's.

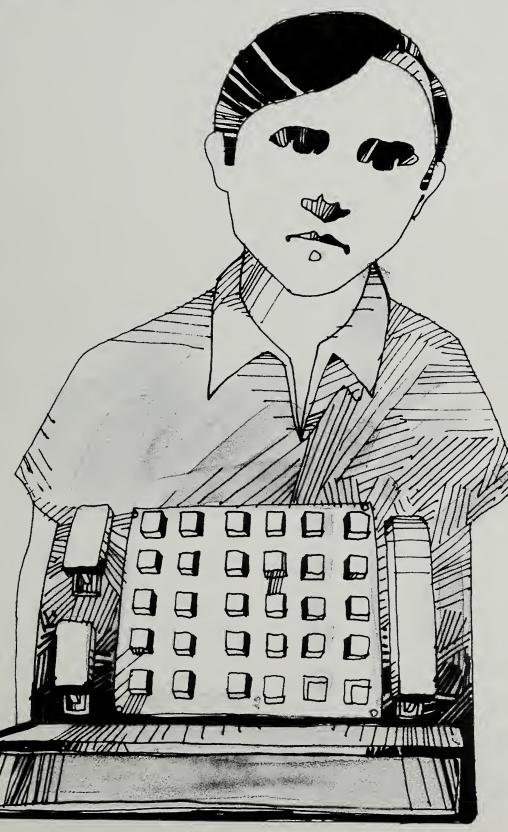
Fresh flowers are among the air carriers' top 10 revenue-earners on the freight end. Business has been steadily growing by 5 percent a year, and the wholesale value of flowers moved by air now totals around \$72 million.

Though it's generally agreed in the industry that volume and value of air shipments of flowers will keep rising in the years ahead, it's also plain that marketing costs will increase faster than in recent times, because of—

- Rapidly rising rates of air freight, which during 1970 rose 10 percent;
- Cutbacks in frequency of scheduled passenger flights to mediumand small-sized cities; and
- Increasing handling costs for pickup and delivery services to and from air terminals relative to other surface delivery costs.

Another concern of California and other U.S. growers is the increase in imports by air from Central and South America. In 1967–70, imports of cut flowers and foliages tripled, and now account for slightly over 3 percent of total marketings. Cut flowers from South America are being offered to the eastern market at much lower prices than domestic growers of cut flowers can afford to meet. (17)

# ONE CHILD'S FOOD BILL



The 18-year cost of feeding one youngster at home is one of the biggest child-rearing expenses, and is largely determined by a family's size and income level.

If they sat down and thought about it, parents would probably be happy that the cost of feeding their children is borne on a pay-as-you-go basis. Take, for example, a family of husband and wife with two children whose food spending falls in line with USDA's moderate-cost plan. At today's prices, a youngster in this family could run up a bill for food at home (including packed lunches carried from home) of approximately \$8,500 by the time he turns 18.

Family economic position is one of the main factors in determining how much will be spent for a child's food.

Children's food expenses at various economic levels can be gauged by using the USDA food plans. The food plans are guides for the quantities of food needed for individuals of specified age and sex. Plans are avaliable at four levels—economy, low-cost, moderate-cost, and liberal.

Both the economy and low-cost plans recommend specific amounts of food from 11 food groups that provide nutritionally adequate diets for families on limited budgets.

Compared to these two plans, the moderate-cost plan lists larger quantities of milk, meat, fruits, and vegetables. In addition, it provides for a few higher-priced commodities—such as fresh products purchased out of season, and convenience foods.

The liberal plan suggests slightly larger quantities, and also differs from the moderate plan in that it permits more expensive choices within the food groups.

Level of food spending is affected by income and size of family. For example, the food expenditures in a two-child family with a net income of \$8,000 would probably be in line with the moderate-cost plan. Add three children to the same family, however, and food spending per child would fall in the low-cost category.

In a five-child family, food costs

per child are usually 12–13 percent below those of a two-child family, assuming the families eat at the same level. Food costs per individual in large families are lowered somewhat by savings gained through buying and cooking in large quantities.

At the moderate-cost level, a family of four with two elementary school children spends close to \$40 a week for food at home.

If one of the two children were under a year old, the weekly food bill would be about \$35. Under the moderate food plan, the cost of feeding an infant is roughly \$4.50 per week—or about \$235 a year.

The food needs of young boys and girls grow at the same rate until about 9 years. It's then that a gap in their eating patterns emerges. At current prices, a girl's monthly food bill peaks at around \$47 between the ages of 12 and 15. For a boy, however, the cost climbs to a high of about \$58 between 15 and 20 years.

At today's prices, the total cost of feeding a boy under the moderate food plan from infancy to 18 years would be a little over \$8,700; for a girl, about \$8,100.

These costs refer to 21 meals a week prepared at home or carried from home in packed lunches. They don't account for such items as

candy bars and ice cream cones purchased by the child away from home, or the extra costs of having his friends in for dinner or a snack.

When based on present prices, food costs estimated for each age group are useful for courts of law in support cases and planners of welfare programs to determine fund allocations for dependent children. But these estimates can't serve as an accurate measure of food costs over an 18-year period, for the estimates don't reflect increases in prices.

Using yearly price changes measured by the Consumer Price Index, it's possible to estimate the cost of feeding a child of any age during any one year. Suppose, for example, there's a 9-year-old boy in a four-person family that spends at the moderate food plan level. At March 1971 prices, his annual food bill would be over \$500. But in 1960—due to lower food prices—the cost would have been roughly \$400.

For a youngster born in 1951 and raised in a rural area in a family of not more than 5 children, the total food bill for 18 years, including meals bought away from home—in prices current each year—would have been about \$7,000. For an urban youngster, the cost would have been somewhat higher. (20)

#### A CHILD'S PORTION OF THE WEEKLY FOOD BILL1

Sex-age group	Low-cost plan	Moderate-cost plan	Liberal-cost plan		
		Dollars			
Children, under 1 year <sup>2</sup>	3.60	4.50	5.10		
1-3 years	4.60	5.80	6.90		
3-6 years	5.40	7.00	8.40		
6-9 years	6.60	8.50	10.60		
Girls, 9-12 years	7.50	9.70	11.40		
12-15 years	8.30	10.80	13.10		
15-20 years	8.50	10.70	12.80		
Boys, 9-12 years	7.70	9:90	12.00		
12-15 years	9.10	11.90	14.20		
15-20 years	10.40	13.30	16.00		

<sup>1</sup> Based on average prices, March 1971. Estimates were computed from quantities in food plans published in *Family Economics Review*, October 1964. The costs of the food plans were first estimated by using the average price per pound of each food group paid by urban survey families at three selected income levels in 1965. These prices were adjusted to current levels by use of *Retail Food Prices by Cities* released periodically by the Bureau of Labor Statistics. <sup>2</sup> Costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 5-person—subtract 5 percent; 6-or-more person—subtract 10 percent.

## The Price You Pay—Where Does It Go?

If you were to cut a spear of canned or frozen asparagus into three equal pieces, you'd have a good example of how the price you paid at the supermarket is distributed among the farmer, the processor, and the wholesaler and retailer.

They share the retail price of asparagus almost equally—a unique distribution among canned and frozen vegetables.

In a new publication showing price spreads in 1965/66-1969/70, ERS points out the total marketing share for all processed fruits and vegetables averaged 78 percent of the retail price. Farm value was 22 percent.

Of the marketing share, the processor got 42 percent and the wholesaler and retailer, 36.

Although the processor's margin averaged 42 percent of the retail price overall for fruits and vegetables, it varied greatly among individual items.

It was 50 percent or more for canned applesauce, peaches, pears, grapefruit sections, and frozen lemonade. All had higher marketing margins than the average for fruits.

The same was true for canned vegetables such as lima beans, beets, tomatoes, green beans, corn, peas, and spinach.

And while the wholesaler and retailer's share averaged 36 percent of the retail price of all processed fruits and vegetables, their share was higher—about 50 percent—on frozen peas, corn, green beans, and spinach. (25)

#### Safflower Oil May Spread to Cooking Uses

A new kind of safflower seed is showing promise as a source for oil that is particularly good for cooking.

Regular safflower oil is used principally for margarine. When used for cooking, the oil has a tendency to form particles that affect the food's flavor.

But the oil of the newly developed

safflower seed—called high oleic safflower oil because of its 80-percent oleic acid content—has a bland flavor and excellent stability and is particularly suitable for cooking and frying. It is most likely to compete with peanut, olive, and coconut oils.

Regular safflower oil's chief advantage over other edible oils is that it has the highest unsaturation of any vegetable oil on the market. (Highly unsaturated vegetable oils have been found to reduce levels of cholesterol in the blood.)

Last year, of the 100 million pounds of regular safflower oil used, 80 million went into food products. Margarine accounted for about a fourth. Most of the remainder went into salad and cooking oils and shortening. Of the 20 million pounds used industrially, most went as a drying oil in paints, printing inks, and artists' oil paints.

This is one of the oldest cultivated plants, but in the U.S., it wasn't until the 1950's that the crop was successfully grown on a commercial scale. California and Arizona, where it is produced under irrigation, account for almost all the U.S. safflower. (24)

# Cheese Wedges Way To Greater Popularity

Cheese is one of the dairy industry's hottest selling items. Despite rising retail prices, consumer purchases last year were up about 9 percent from a year earlier. Sales slackened somewhat during the first part of this year, but have remained 8 percent over 1970 levels since March.

Capping 2 decades of rapid gains, cheese use jumped 6 percent last year to 11½ pounds per person. If present trends continue, per capita use may hit 14–15 pounds by 1980.

Data on cheese consumption are usually reported for only two broad categories—American and "other." About two-thirds of the cheese eaten in the U.S. is American cheese. The terms American and Cheddar are often used interchangeably. Actually, American cheese refers to a general

#### The Egg and You

How many eggs do you eat a year?

Well, if you haven't had about 238 by the end of this month, you're getting behind the national average.

Last year, every American ate an average of 319 eggs—34 of them in processed form.

Nationally, consumption is higher in fall and winter.

As everyone can guess who's dyed an Easter egg, or deviled eggs at holiday times, demand picks up during Lent, Easter, and Passover and at Thanksgiving and the Christmas seasons.

In spring, more eggs usually go for hatching, into liquid egg production, and cold storage stocks than at other times of the year. (23)

cheese group that includes Cheddar, Colby, and some lesser-known types.

Of total American cheese use, nearly 85 percent is Cheddar, and the remainder mostly Colby. Cheddar consumption has risen a sharp 1 pound per person since 1966.

Use of other-than-American cheese reached 4.4 pounds per person last year—double the 1950 mark. Sales during the first quarter of 1971 ran 9 percent above year-earlier levels.

The category of "other" cheeses includes several varieties for which production is reported separately—Brick, Limburger, Italian-types, Cream, Neufchatel, and Blue mold. Some cheeses in this group aren't produced in the United States at all. Roquefort, Pecorino, and Gjetost, for example, are entirely imported.

Italian and Swiss cheeses account for roughly two-thirds of "other" cheese consumption, but Italian cheeses are the biggest gainers in this broad category. Per capita use reached a little over 2 pounds per person last year—four times the 1950 tally. Though use of each reported Italian variety has picked up, Mozzarella was the front runner—mainly due to its importance as a pizza ingredient.

Gains were more modest for most "other" cheeses—including Swiss, Muenster, Neufchatel, Edam and Gouda. Per capita use of only Brick and Limburger has fallen off. (21)

#### Pick of Potatoes Is Unadorned, Unprocessed

Today's consumer encounters a host of processed potato products ranging from dehydrated scalloped potatoes to frozen potatoes au gratin. The shopper's choice, however, is more likely to be fresh white potatoes.

Nearly all the 3,000 plus home-makers who participated in a nation-wide survey said they had served some form of white potatoes (excluding potato chips) in a the month preceding the interview. Over 60 percent said they had prepared fresh potatoes only. A mere 1 percent said they had served only processed potato products.

The majority of respondents felt that the processed potato dishes covered in the study cost more per serving than those prepared at home "from scratch." Moreover, these forms of commercially prepared potatoes were considered less flavorful than the fresh product.

Among the processed varieties, frozen french fries received top honors in flavor-ratings and number of purchasers. However, less than a third of the survey participants bought "frozen fries" in the previous month. Less than a fifth purchased the other major contender: instant mashed potatoes.

In a fourth of the households, fresh white potatoes were served six or more times in an average week. The North Central Region contained proportionately more "heavy-user" households than any other region. The South had the lowest concentration of high-use households.

Four-fifths of the homemakers had made mashed potatoes in the month prior to the survey, three-fifths served boiled and baked potatoes, and less than half served homemade french fries. (22)



Though not expected to be sizable, sales of U.S. butter to Britain should help ease the U.K.'s tight supply, while lending stability to prices on the world market.

Rarely does it happen, but this year is one of the exceptions: Britain has sought and bought butter from the United States.

These rare sales of U.S. butter to the United Kingdom—the first in 7 years—stemmed from unusual circumstances in areas on opposite sides of the world: New Zealand and the European Economic Community (EC).

First of all, the United Kingdom needs a billion pounds of butter annually to provide its population with an average of 20 pounds per person, year in and year out.

New Zealand, a member of the Commonwealth family, usually provides about 40 percent (about 400 million pounds annually) of Britain's butter. U. K. farmers themselves contribute around 10 to 15 percent;

and the balance comes from quotas granted mainly to neighbors in Western Europe.

New Zealand, the world's largest dairy exporter, relies heavily on its sizable sales to Britain. It usually has to beat the bushes to find other markets for surpluses, particularly butter and cheese.

Ironically, in recent times New Zealand's dairy industry has seen prices of both butter and cheese rise in the U. K. market to the highest levels in history. And it has been unable to take full advantage of the situation.

Dry weather during the peak milk production periods (September through December) in both 1969 and 1970 cut total milk output by 8 percent over the 2 years and left New Zealand without exportable stocks at the end of the marketing year on March 31, 1971.

Milk production continued at low levels in 1970/71. With the steady domestic demand for fluid milk, butter production is still down, although rains in the first quarter of 1971 provided some increased butter output as compared with the same period of 1970.

Meanwhile, the European Common Market countries were vigorously whittling away at the mountain of butter they had faced since 1966—stocks ranging from 500 million to almost a billion pounds.

The EC countries subsidized their butter for export at high rates ranging from 34 to 64 cents a pound, so that it could be bought in most any port city outside Western Europe at landed prices of 20–25 cents a pound. They donated butter to the World Food Program. They sold storage butter cheaply at home for special purposes. They paid farmers premiums for slaughtering dairy cattle, as well as for nondelivery of milk and shifting to beef production.

The combined measures had a cumulative effect.

Milk production began to decline in 1970, and by the end of the year the EC's butter mountain had been melted down to no more than a comfortable reserve. Between March 1970 and March 1971 stocks had dropped from 677 million pounds to 200 million pounds.

Milk production was also declining in other traditional dairy countries of Western Europe—Denmark, Finland, Ireland, Sweden, and Switzerland. (Some of this decline during 1970-71 is attributed to liquidation of dairy herds.)

In the face of all these developments, coupled with increased demand for dairy products all over Western Europe, the British were understandably concerned about a prospective shortage of butter.

As early as November 1970, the U. K. had begun to issue special butter quota authorizations when deliveries from New Zealand were lagging.

In April 1971, it relaxed quotas further to allow imports in unlimited quantities from any source except Southern Rhodesia. But the action brought in little additional butter because traditional suppliers simply didn't have enough to export.

To alleviate the acute situation, Britain then turned to the United States and Canada to help out. Canada had little to spare.

But there was plenty of butter in our Commodity Credit Corporation inventory. And so, on May 12, 1971, to ease Britain's tight supply situation and reduce our own Government holdings, the USDA initiated a limited export sales program for CCC-owned butter.

Through mid-July a little more than 13 million pounds of U.S. butter had been shipped to the United Kingdom at a price of 50 cents per pound.

Initially, sales for export under this program were authorized for shipment only to Great Britain. Since then, the program has been expanded to make butter available to any market at the 50-cent-per-pound price.

Although U.S. butter exports are not expected to be sizable in terms of world market demand, they should help ease the tight supply situation and, perhaps more importantly, help to stabilize soaring prices on the world market.

As of May 1971, the price of New Zealand butter in the United Kingdom increased by \$120 per long ton, which brought the wholesale price to \$1,008 per long ton—or 45 cents per pound. By the end of June, the wholesale price per pound was up to 49 cents per pound. During 1967–69, the price of New Zealand butter on the U. K. market was stabilized at about \$720 per long ton, or a little over 32 cents per pound.

The way British consumers see the price picture is this: From 1968 to mid-1970 they were able to buy New Zealand and Danish butters at retail for 35–40 cents and 50–55 cents per pound, respectively. By the end of June this year, the retail price was in the range of 60 to 70 cents per pound—an increase of 40 to 70 percent within 12 months.

Despite the British affinity for butter, it is not unlikely that such drastic price changes might alter British buying habits. (26)

## Asia's Green Revolution Parallels U.S. Experience

The introduction of improved wheat and rice varieties in South Asia has sparked production increases in much the same way as hybrid corn did in the United States.

There's another parallel between Asia's Green Revolution and our corn revolution: the impact of the newer seed varieties has been unevenly distributed.

Foodgrain production has risen the most in the regions where the respective crops were being widely grown prior to the development of the new seed varieties. In regions where wheat and rice are not widely produced, farm production has not increased substantially.

For example, in 1936 hybrid corn was introduced in our leading corn State of Iowa. Four years later, hybrids were being grown on 90 percent of that State's corn land.

It took longer to develop varieties suited to conditions in the South.

Such a variety was not available in Alabama until 1948. Further, hybrids were adopted less rapidly by Alabama farmers than by farmers in Iowa. More than 12 years were required before 90 percent of Alabama's corn land had been put to hybrids. One reason is that the comparative advantage in Alabama lies with cotton production, as opposed to corn.

India's experience has been similar. Wheat production doubled during 1965-70 owing to the adoption of dwarf wheat varieties brought in from Mexico. But this has not been a country wide phenomenon.

The new wheat technologies are mainly concentrated in northwest India in the State of Punjab, already the country's most rapidly developing region in agriculture and No. 1 in wheat production.

Nearly all of the new wheat varieties are grown under irrigation. In Punjab, where 70 percent of the cropland is irrigated, wheat production per acre rose over 75 percent between 1965–70.

Rice is a somewhat different story. Compared to wheat, India's farmers have accepted the newer rice varieties more slowly. Part of this has been due to the uncertainty about the results from agronomic and genetic research and incomplete knowledge about the adaptability of the new varieties in particular areas. Early developed strains of high-yield rice were of lower quality than the traditionally grown varieties. The new rice varieties were also more susceptible to disease, and required precise management of irrigation water—certainly more precise than is now possible on most rice producing farms.

The problem is being worked on, and within 3-5 years, researchers anticipate the development of rice strains that will be readily adaptive to local conditions.

Considering the importance of rice in South Asia—in India rice occupies 60 percent of the cropland—the perfection of high-yield rice varieties could lead to a marked increase in total food production.

The uneven impact of the technologies basically has to do with regional differences in land and water resources, according to the production economists. In the U.S., for example, farmers in many of the Plains States don't grow much hybrid corn because the climate is too hot and dry to support good yields. (Plains farmers do, however, grow hybrid grain sorghum, and they account for the bulk of the U.S. sorghum crop.)

Likewise in India, the new wheat and rice varieties have not been successfully used in areas where water is scarce. The possibilities for markedly increasing the amount of land irrigated are limited because of the high cost of developing public irrigation systems. For this and other reasons, some observers do not anticipate significant increases in wheat and rice production in regions where irrigation and other agricultural resources are lacking. (27)

# The Auchenidae: A Family of Longhairs

Whatever happened to the Auchenidae family?

Two branches of these aristocratic, fine-haired South Americans are alive and reasonably well. They are the alpaca and the llama, found chiefly in Peru, Bolivia, southern Ecuador, and northwest Argentina.

But the vicuna, another of the group and the smallest in size, is in danger of extinction; and a fourth family member, the guanaco—wild and shy like the vicuna—hardly ever gets in the news. (All four animals, incidentally, are humpless relatives of the camel.)

Nobody seems to know exactly how much Auchenidae hair is being clipped. Production is probably around 10 million pounds yearly—but falling. Peru is by far the largest producer and exporter; Bolivia provides relatively small quantities; and the United States is the major importer.

U.S. imports, however, have de-

clined from an annual average of over 4 million pounds (uncleaned weight) in the 1950's to less than  $1\frac{1}{2}$  million pounds in 1970.

Peru and Bolivia banned export of vicuna hair and skins after wholesale slaughter of recent years reduced vicuna numbers to only about 20,000. Trade in the elusive guanaco has always been pretty much limited to the Andean locale. The llama and alpaca therefore account for almost all Auchenidae transactions.

The llama—primarily a beast of burden—normally yields brownish hair about 10–12 inches long. It is a mixture of fine fibers and "kemp": coarse, brittle hair most suitable for rugmaking. The alpaca's fleece, about 8–16 inches long, is much finer and more prized by the textile industry, especially for spinning worsted.

Alpaca exports far exceed those of llama. Peruvian shipments of alpaca, for example, totaled 5.3 million pounds in 1966, compared with 230,000 pounds of llama.

If and when the vicuna should ever get gack into circulation, its 2-inch undercoat hair would still produce a softer and finer fabric than can be obtained from any other wool or hair fiber. (30)

## Reforms Come To Romanian Farmers

The agricultural reforms now under way in Romania are considered among the most far reaching in Eastern Europe.

Collectivization in Romania began on a large scale in 1955, using the Soviet system as a model. By 1962, the process was completed. But in the 5 years to follow, agricultural production did not increase as much as officials had anticipated.

So the government, in late 1968, embarked on a policy of correcting the shortcomings, while working within the socialized system.

A recent ERS study cites several of the reforms, mainly having to do with mechanization, credit, and payments to workers.

All the mechanized work was done

for the individual collective farms by state machine and tractor stations. The stations proved inefficient in dispersing machinery where and when it was most needed. Along with delays in plowing and harvesting, machinery breakdowns also held down gains in production.

As part of the 1968 reform program, each collective farm has been given its own machine section.

The problem of inadequate credit, another drawback, is being met by giving the socialized Agricultural Bank an expanded role in extending long- and short-term credits for farm investments and working capital.

The most sweeping reform is the change in the system of paying farm laborers. Formerly, workers got at share of residual farm profits at the end of each year. Workers' shares were allocated according to "works' day" credits, based on norms for performing specific tasks. The deferred payments brought hardships to farm workers, and the gap widened between incomes of farmers and urbanites.

The "work day" system has since been scrapped. In its place are wage scales based on the value of work performed. Workers are paid monthly or semi-monthly, in cash or kind. Also, those working at least 15–20 days a month receive a minimum monthly wage. In addition, farmers are entitled to purchase specified amounts of wheat and corn for home consumption.

Probably the most important changes in Romania's agriculture ushered in with the 1968 reforms were massive programs aimed at improving the irrigation systems and livestock facilities.

The ERS study says that since 1966, the country's agricultural production has had one of the highest growth rates among the nations of Eastern Europe. (28)

Correction. Last sentence of Cuba story, this page August issue, should read "Sugar output in 1970/71 reached 5.9 million metric tons."

### Recent Publications

A SUMMARY OF STATE REGULATIONS PERTAINING TO ANIMAL WASTE MANAGEMENT IN THE NORTH CENTRAL REGION OF THE UNITED STATES. L.J. Connor, J.B. Johnson and C.R. Hoglund, Michigan State University, cooperating with Farm Production Economics Division. AER 193.

Since animal waste has been identified as a potential or existing source of environmental pollution, various States have enacted legislation to minimize this type of pollution. The regulations cited in the publication provide a summary of present and proposed State regulations relating to the subject. The regulations listed in the report are those in effect or being proposed as of April 1971.

PRICING MILK AND DAIRY PRODUCTS: PRINCIPLES, PRACTICES, AND PROBLEMS. Alden C. Manchester, Marketing Economics Division. AER 207.

The report discusses the current pricing process, traces how present practices evolved, and examines emerging problems.

THE CHICKEN BROILER INDUSTRY: STRUCTURE, PRACTICES, AND COSTS. Fred L. Faber and Ruth J. Irvin, Marketing Economics Division, MRR 930.

During 1950-70 the industry changed dramatically from being one of small, widely scattered chicken farms to one that is large, concentrated, and efficient. More than 95 percent of broilers are grown under contract and by integrated firms that vary in size and complexity.

COSTS AND RETURNS: SOUTH-WEST CATTLE RANCHES. Wylie D. Goodsell, and James R. Gray, Farm Production Economics Division; and Macie J. Belfield, New Mexico State University. FCR 78.

This study is part of a continuing nationwide report of costs and returns on commercial farms and The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.

ranches in selected farming regions. Returns in 1969 were above average because of favorable prices received for cattle. Major expenses were feed, grazing fees, labor, and livestock purchases.

VERTICAL AND HORIZONTAL INTEGRATION IN THE MARKET EGG INDUSTRY 1955-69. George B. Rogers, Marketing Economics Division. ERS 477.

A new model to measure integration in the egg-market industry indicates lower production in regions where the rate lags, and a higher production where it has been more vigorous.

A PROFILE OF THE RURAL POOR IN THE NORTHEASTERN COASTAL PLAIN OF SOUTH CAROLINA. Jackson V. McElveen, Economic Development Division, and Buddy L. Dillman, Clemson University. AER 202.

This report presents a profile of poverty groups—based on characteristics of household heads—which could be useful in formulating and evaluating assistance programs for the poor.

WELFARE REFORM: BENEFITS AND INCENTIVES IN RURAL AREAS. Fred Hines and Max Jordan, Economic Development Division. ERS-470.

Under the proposed family assis-

tance plan, U.S. welfare benefits would increase substantially, with major shares of this increase going to poor rural residents in the South.

REGIONAL VARIATIONS IN ECO-NOMIC GROWTH AND DEVELOP-MENT, WITH EMPHASIS ON RURAL AREAS. Clark Edwards, Robert Coltrane, and Stan Daberkow, Economic Development Division. AER 205.

Rural economic development planners can use this report's indexes of economic development and growth to suggest desired targets relating to levels of income and employment in multicounty areas.

ECONOMIC IMPACT OF THE CROW WING CANOE TRAIL, WADENA COUNTY, MINN. Uel Blank, University of Minnesota; and Sterling H. Stipe Jr., National Resource Economics Division. ERS 467.

This study evaluates the economic impact of the development of a 70-mile long Canoe Trail in Wadena County, Minn., and provides useful guidelines for communities or organizations undertaking similar projects. (See March 1971 Farm Index.)

COMMERCIAL FREEZING OF SIX VEGETABLE CROPS IN THE SOUTH. John R. Brooker, and James L. Pearson, Marketing Economics Division, cooperating with Florida Agricultural Experiment Station. MRS 926.

Vegetable producers in the South might have a net outlet if food processing in the region were increased. This study of model vegetable freezing plants indicates such plants might be operated profitably at certain levels of plant size and prices.

FRUITS PART I: NONCITRUS BY STATES, 1969-70: PRODUCTION/USE/VALUE. Statistical Reporting Service. FRNT 4-1 (5-71).

This report presents statistics on production, farm disposition, price, and utilization of sales for 16 noncitrus fruits. Estimates of production and value for 1970 crops have been revised, where necessary, from preliminary estimates published in the Annual Crop Summary and Crop Values report released December 1970.

CHANGES IN FARM PRODUCTION AND EFFICIENCY: A SUMMARY REPORT, 1971. Farm Production Economics Division. Stat. Bull. 233.

U.S. farm output in 1970 dipped 1 percent below 1969, but equaled 1968 and was 2 percent above the 1967 volume. Record livestock production in 1970 about offset a decline in crop production.

LUNCH PROGRAMS IN THE NATION'S SCHOOLS. William H. Freund, Marketing Economics Division. AER 210.

A survey in March 1968 showed about 75 percent of the Nation's 105,000 public and private elementary and secondary schools provided noontime food services.

CORPORATIONS WITH FARMING OPERATIONS. George W. Coffman, Farm Production Economics Division. AER 209.

A U.S. Department of Agriculture survey conducted in 1968 shows that 13,300 farming corporations operated 7 percent of U.S. farmland, representing 1 percent of all commercial farms. Farming was the only business activity for nearly two-thirds of the farming corporations surveyed.

DEVELOPMENTS IN MARKET-ING SPREADS FOR AGRICUL-TURAL PRODUCTS IN 1970. Marketing Economics Division. ERS-14 (1971).

Charges for marketing food products that originated on U.S. farms rose substantially more in 1970 than in any year during the 1960's. Major attention centered on pork and beef, which rose 20 percent and 9 percent respectively.

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NOTE: Unless otherwise indicated, authors are on the staff of the Economic Research Service (ERS) with their divisions designated as follows: Economic and Statistical Analysis Division (ESAD); Economic Development Division (EDD); Farm Production Economic Division (FPED); Foreign Development and Trade Division (FDTD); Foreign Regional Analysis Division (FRAD); Marketing Economic Division (MED); and Natural Resource Economics Division (NRED).

	Unit or			1970		1971	
Item	Base Period	1967	Year	June	April	May	June
Prices:							
Prices received by farmers	1967 = 100	_	110	110	111	113	113
Crops	1967 = 100	_	100	101	108	111	114
Livestock and products	1967 = 100	_	118	117	114	114	113
Prices paid, interest, taxes and wage rates	1967 = 100	_	114	114	119	120	120
Family living items	1967 = 100	_	114	114	117	118	119
Production items	1967 = 100	_	110	109	115	115 94	116 94
Ratio 1	1967 = 100	_	96 110.4	96 110.3	93 113.3	113.8	9 <del>4</del> 114.3
Wholesale prices, all commodities  Industrial commodities	1967 = 100 $1967 = 100$		110.4	10.3	113.3	113.0	113.9
Farm products	1967 = 100 $1967 = 100$		111.0	111.6	113.0	114.0	116.0
Processed foods and feeds	1967 = 100	_	112.0	111.7	113.5	114.5	114.9
Consumer price index, all items	1967 = 100		116.3	116.3	120.2	120.8	121.5
Food	1967 = 100	_	114.9	115.2	117.8	118.2	119.2
Farm Food Market Basket: 2							
Retail cost	Dollars	1,080	1,225	1,228	1,239	1,243	1,251
Farm value	Dollars	414	480	480	476	474	479
Farm-retail spread	Dollars	666	745	748	763	769	772
Farmers' share of retail cost	Percent	38	39	39	38	38	38
Farm Income: <sup>3</sup>							
Volume of farm marketings	1967	100	104	91	81	81	91
Cash receipts from farm marketings	Million dollars	42,693	49,231	3,631	3,418	3,428	3,700
Crops	Million dollars	18,434	19,636	1,171	976	952	1,200
Livestock and products	Million dollars Billion dollars	24,259 49.0	29,595 56.6	2,460 57.1	2,442	2,476	2,500 57.6
Realized gross income <sup>4</sup> Farm production expenses <sup>4</sup>	Billion dollars	34.8	40.9	40.7		=	42.8
Realized net income 4	Billion dollars	14.2	15.7	16.4	_	_	14.8
Agricultural Trade:	Dillion dollars	1 1.2	15.7	10.1			
Agricultural Trade: Agricultural exports	Million dollars	_	7,174	_	634	625	607
Agricultural imports	Million dollars	_	5,667	_	554	478	530
Land Values:			-,				
Average value per acre	1967 = 100	_	<sup>6</sup> 118	<sup>7</sup> 117	_	_	<sup>8</sup> 121
Total value of farm real estate	Billion dollars	_	<sup>6</sup> 207.3	<sup>7</sup> 208.2	_	_	<sup>8</sup> 214.0
Gross National Product: 4	Billion dollars	793.9	974.1	968.5	_	_	1,040.5
Consumption	Billion dollars	492.1	615.8	613.8	_	_	660.1
Investment	Billion dollars	116.6	135.3	134.1	_	_	150.1
Government expenditures	Billion dollars	180.1	219.4	216.5	_	_	230.2
Net exports	Billion dollars	5.2	3.6	4.2	_	_	.1
Income and Spending: ⁵							
Personal income, annual rate	Billion dollars	629.3	803.6	801.4	844.7	850.1	870.3
Total retail sales, monthly rate	Million dollars	26,151	30,381	30,518	32,845	32,523	_
Retail sales of food group, monthly rate	Million dollars	5,759	6,789	6,818	7,096	7,212	_
Employment and Wages: 5	A 4:11:	74.4	70.6	70.2	70.7	70.0	70.4
Total civilian employment	Millions	74.4	78.6	78.3	78.7	79.0	78.4
Agricultural	Millions	3.8	3.5	3.5 3.9	3.6 6.1	3.5 6.2	3.3 5.6
Rate of unemployment Workweek in manufacturing	Percent Hours	3.8 40.6	4.9 39.8	40.0	39.5	39.9	40.2
Hourly earnings in manufacturing,	Hours	70.0	55.0	70.0	33.3	33.3	10.2
unadjusted	Dollars	2.83	3.36	3.36	3.54	3.55	3.57
Industrial Production: ⁵	1967 = 100		106	107	105	106	106
Manufacturers' Shipments and Inventories: 5	1307 100		.00	.0,		.00	
Total shipments, monthly rate	Million dollars	45,712	55,554	56,438	58,426	59,122	_
Total inventories, book value end of month	Million dollars	82,825	99,614	97,706	99,426	99,525	_
Total new orders, monthly rate	Million dollars	45,928	55,009	55,778	57,279	57,895	_
I Dut At I A A A						~	

<sup>&</sup>lt;sup>1</sup> Ratio of index of prices received by farmers to index of prices paid, interest, Taxes, and farm wage rates. <sup>2</sup> Average annual quantities of farm food products purchased by urban wage-earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. <sup>3</sup> Annual and quarterly data are on 50-State basis. <sup>4</sup> Annual rates seasonally adjusted second quarter. <sup>5</sup> Seasonally adjusted. <sup>6</sup> As of November 1, 1970. <sup>7</sup> As of March 1, 1970. <sup>8</sup> As of March 1, 1971.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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